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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,998	04/06/2004	Brian W. Cho	68.0409	2997

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SCHLUMBERGER RESERVOIR COMPLETIONS
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EXAMINER

FULLER, ROBERT EDWARD

ART UNIT PAPER NUMBER

3672

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,998	Applicant(s) CHO, BRIAN W.	
	Examiner Robert E. Fuller	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1,2,7-15 and 19 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 16-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/07/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species:

- I. Eccentric cutting tool, as shown in figures 2-4.
- II. Concentric cutting tool, as shown in figures 5-7.
- III. Dual tubing cutting tool, as shown in figures 8 and 9.

The species are independent or distinct because the three cutting tool types are structurally unique.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-12 and 20 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02(a).

During a telephone conversation with Kevin McEnaney on February 27, 2006 a provisional election was made without traverse to prosecute the invention of Species I, claims 13-19. Affirmation of this election must be made by applicant in replying to this Office action. None of the claims have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tubing cutter referred to in claim 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because of the following informalities:

- a. The abstract is constructed as one run-on sentence, rather than a narrative paragraph.
- b. The abstract contains the implied phrase: "The present invention provides."
- c. The abstract contains no explanation of what the applicant believes is new about his invention.

Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 7-10, and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Calhoun (US 4,160,478).

With regard to claim 1, Calhoun discloses a tool for cutting a control line within a wellbore. Calhoun's device has the following features:

d. A mandrel (the combination of 72 and 74 of figures 8 and 9) having a base (figure 9, item 75) mounted thereon, where the mandrel has upper and lower ends.

e. A sleeve (71) carried on the mandrel, the sleeve having a contoured profile (114) that mates with a contoured profile on the base (item 150) and in which the object (figure 13, item 30) passes through the base and the sleeve.

f. A housing (70) mounted to the upper end of the mandrel and releasably engaged with the sleeve. Calhoun further teaches that the housing lifts upward so that the sleeve rotates as it tracks the contoured profile on the base, cutting the object as it moves from the position shown in figure 2A to that shown in figure 3B.

With regard to claim 2, the base (75) and sleeve (71) of Calhoun's device have countoured profiles (item 150 and item 114, respectively) which are shaped like a portion of a helix.

With regard to claim 7, the mandrel (the combination of items 72 and 74 of figures 8 and 9) could be severed at any point, therefore it has a severable zone.

With regard to claim 8, the mandrel is indirectly connected to an upper tubing (figure 2A, item 53) and a lower tubing (figure 3B, item 35). With respect to the upper tubing, the mandrel is mated to the housing (70), which is connected to the upper tubing. With respect to the lower tubing, the mandrel rests on a spring (figure 3B, item 80), which is mounted on the base (75) via a support ring (figure 3B, item 153). Because the base (75) rests on the lower tubing (35), the mandrel is indirectly connected to the lower tubing.

With regard to claim 9, Calhoun discloses using his device to cut "wire line" (column 1, line 9), which could be a control line.

With regard to claim 10, the wire line discussed above could be an electric cable.

With regard to claim 12, Calhoun discloses a completion device for use in an underground wellbore, where the device has the following features:

- g. An upper tubing (figure 2A, item 53).
- h. A housing (70) mounted to the upper tubing.
- i. A mandrel (the combination of items 72 and 74 of figures 8 and 9), which is partially enclosed (as seen in figure 2A) by the housing (70). As the mandrel could be severed at any point, it therefore has a severable zone.

- j. A base (75) moveably mounted on the mandrel and releasably mounted to the housing, the base having a contoured edge (150).
- k. A sleeve (71) rotatably mounted on the mandrel (72 and 74) above the base (75), the sleeve having a mating contoured edge (114).
- l. A line (30) passing along the upper tubing (53), the housing (70), through passageways in the base (figure 8, item 75) and sleeve (figure 4), and a lower tubing (35) mounted to the mandrel. The mandrel is mounted to the lower tubing as discussed above in the rejection of claim 8.

With regard to claim 13, Calhoun discloses using his device to cut "wire line" (column 1, line 9) which could be an electrical cable.

With regard to claim 14, the housing (70) has a channel along its length through which the line is placed (figure 10).

With regard to claim 15, the base (75) and sleeve (71) have channels in which the line initially resides (see figure 4, figure 8, and figure 13).

Claim Rejections - 35 USC § 103

8. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calhoun (US 4,160,478).

With regard to claim 11, Calhoun discloses all the limitations of the above claims, except for the ability of the device to cut a plurality of objects.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used the device of Calhoun to sever more than one line at a time, as the bore of Calhoun's device was relatively large compared to the

wire line shown in figure 13, and it would have been more efficient to cut two lines as once, especially when considering that Calhoun's device was meant to be used in an emergency, where time is of critical importance.

With regard to claim 19, Calhoun discloses all the limitations of the above claims, except for the sleeve and base being manufactured from a single tube.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have manufactured the base and sleeve of Calhoun from a single tube of metal, in order to have provided a more efficient means of manufacturing the device, which would have lowered costs and decreased the amount of waste material.

Allowable Subject Matter

9. Claims 3-6 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. Claim 20 is allowed.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references further teach the state of the art with regard to downhole control line cutters.

US 3,926,252 – Ribeyre et al.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert E. Fuller whose telephone number is 571-272-


Art Unit: 3672

0419. The examiner can normally be reached Monday thru Friday from 8:00 AM - 5:30 PM. The examiner is normally out of the office every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

03/02/2006
REF


Jennifer H. Gay
Primary Examiner